No. 200300071

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pennington Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'Signia'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this sixth day of December, in the year two thousand and six.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

REPRODUCE LOCALLY. ***Include form number and date on all reproductions*** Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
~~Ronnie Stapp~~
~~c/o~~ Pennington Seeds, Inc.
(BT: 8/11/2006)

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
ATF708

3. VARIETY NAME
Signia

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
~~P. O. Box 290~~ 270 Hansard Avenue
~~Madison, GA~~ Lebanon, OR 97355
~~30650~~
(BT: 8/11/2006)

5. TELEPHONE *(Include area code)*
(541) 451-5261
~~404-342-1234~~

6. FAX *(Include area code)*
~~404-342-9844~~
(541) 451-5260
(BT: 8/11/'06)

FOR OFFICIAL USE ONLY

PVPO NUMBER
200300071

FILING DATE
January 9, 2003

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Delaware

9. DATE OF INCORPORATION
01 - 12 - 1998

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers.)*
Leon Strait
~~Ronnie Stapp~~
c/o Pennington Seeds, Inc.
~~P. O. Box 290~~ 270 Hansard Avenue
~~Madison, GA~~ Lebanon, OR 97355
~~30650~~
(BT: 8/11/2006)

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 2705
DATE 1/9/03

CERTIFICATION FEE:
$ 768.00
DATE 10/31/2006

11. TELEPHONE *(Include area code)*
(541) 451-5251
~~404-342-1234~~
(BT: 8/11/06)

12. FAX *(Include area code)*
(541) 451-5260
~~404-342-9844~~
(BT: 8/11/'06)

13. E-MAIL

14. CROP KIND *(Common Name)*
Tall Fescue

15. GENUS AND SPECIES NAME OF CROP
Festuca arundinacea

16. FAMILY NAME *(Botanical)*
Poaceae

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($2,705), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
~~☒~~ YES *(If "yes", answer items 20 and 21 below)*
☒ NO *(If "no", go to item 22)* (BT: 9/29/2006 per applicant's authorization)

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO THE NUMBER OF CLASSES? ☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with applicaiton and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER	SIGNATURE OF OWNER
NAME *(Please print or type)* Ronnie Stapp	NAME *(Please print or type)*
CAPACITY OR TITLE Executive Vice President	DATE 1/09/03
CAPACITY OR TITLE	DATE

S&T-470 (07-01) designed by the Plant Variety Protection Office with WordPerfect 9.0 Replaces STD-470 (04-01) which is obsolete. *(See reverse for instructions and information collection burden statement.)*

Exhibit A:

Origin and Breeding History

Signia (ATF708) Tall Fescue

1. The tall fescue (*Festuca arundinacea*) cultivar 'Signia' traces its parentage to the released cultivar Plantation. A plant selection field containing 2,491 plants of Plantation was planted in the fall of 1996. In the spring/summer of 1997 the 2,500 plants were allowed to mature allowing the stem rust (*Puccinia graminis*) to reach full infection levels. The single plants were then rated for level of infection. The plant selection field was flailed in early summer and the plants were rated for recovery, genetic color and crown density. One hundred plants were then selected, moved together in isolation and designated ATF592. Following harvest in the fall of 1998 a plant selection field of ATF592 was established containing 1,207 plants. In the spring of 1999 the single plants were rated for genetic color, crown density, number of inflorescence, level of endophyte infection (*Neotyphodium coenophialum*) and stem rust (*Puccinia graminis*). Forty-two clones were selected and moved to isolation in the spring beforeanthesis. The 42 clones were designated ATF708, and harvested in bulk.

In the fall of 1999 a 2,500 plant breeder seed increase block was established in isolation in Albany, Oregon. ATF708 was also placed in turf trials to evaluate turf performance. The breeder seed block was harvested in bulk in 2000 and designated ATF708 (S0). A morphological nursery was established in the fall of 2000 for Plant Variety Protection (PVP) measurements.

2. Breeder Seed Maintenance:

A breeder seed multiplication was planted in isolation in 1999 in Albany, Oregon. Seed was harvested in bulk in 2000 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

Signia has been a stable uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication 0.27% of the plants were removed to improve the uniformity of the population. These types were not observed during the subsequent generations. Turf plots of Signia have been uniform.

Exhibit A (addendum)

Uniformity and Stability Statement

Signia has been a stable and uniform cultivar over two generations. No off-type or variant plants have been observed during the multiplication or reproduction. During the breeder seed multiplication plants were removed to improve the uniformity of the population. The plants that were removed showed less vigor and had poor plant health. It is not known if the lack of vigor was due to environmental factors, genetic factors, or an environmental by genetic interaction. These types were not observed during the subsequent generations. Turf plots of Signia have been uniform and stable.

Exhibit B:

Novelty Statement of Signia (ATF708) Tall Fescue

The following summary outlines the distinctive characteristics of Signia. The novelty of Signia is based on the unique combination of these characteristics. Signia is most similar to Rebel II, but may be differentiated by using the following criteria:

1) Signia has a later maturity (heading date, anthesis date) compared to Rebel II (tables 1A, 1B).

2) The genetic color of Signia is significantly darker compared to Rebel II (tables 1A, 1B).

3) Signia is at least 29 cm shorter than Rebel II (tables 1A, 1B).

4) The panicle length of Signia is shorter compared to Rebel II (tables 1A, 1B).

5) The flag leaf characteristics length, height, sheath length and internode length are all shorter for Signia compared to Rebel II (tables 1A, 1B).

6) The leaf blade characteristics length, width, height and sheath length are all reduced for Signia compared to Rebel II (tables 1A, 1B).

7) Signia has a reduced lemma and palea length compared to Rebel II (tables 2A, 2B).

8) Signia has a shorter lemma awn length than Rebel II (tables 2A, 2B).

9) The glume length for Signia is shorter compared to Rebel II (tables 2A, 2B).

10) The length of the longest branch of the lowest whorl is at least 19 mm shorter than Rebel II (tables 2A, 2B, illus. 1).

11) The distance between the lower most whorls is at least 11 mm shorter than Rebel II (tables 2A, 2B, illus. 1).

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY PROGRAM
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT C
(TALL & MEADOW FESCUES)

OBJECTIVE DESCRIPTION OF VARIETY
TALL & MEADOW FESCUES
(*Festuca* spp.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Pennington Seed, Inc. ~~c/o Ronnie Stapp~~ (BT: 8/11/'06)	ATF708	Signia

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)

~~P. O. Box 290~~ 270 Hansard Avenue
~~Madison, GA~~ Lebanon, OR 97355
~~30650~~
(BT: 8/11/'06)

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PVPO NUMBER
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Place the appropriate number that describes the varietal characteristics of this variety in the boxes below. Use leading zeroes when necessary (e.g. 089). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked with an asterisk * are characteristics which should be recorded.

* 1. SPECIES: (With comparison varieties, use varieties within the species of the application variety)

_6__ 1 = *F. arundinacea* (Tall)

Turf Types

1 = Kentucky 31 2 = Rebel 3 = Olympic 4 = Bonanza 5 = Arid 6 = Rebel II

7 = Shortstop 8 = Silverado 9 = Rebel Jr. 10 = Mini Mustang 11 = Crewcut 12 = Bonsai

Forage Types

20 = Kentucky 31 21 = Martin 22 = Forager 23 = Mozark

24 = Kenhy 25 = AU Triumph 26 = Fawn 27 = Cajun

_____ 2 = *F. pratensis* (Meadow)

30 = Admira 31 = Beaumont 32 = Comtessa 33 = Ensign 34 = Trader

* 2. CYTOLOGY:

___42_____ Chromosome Number

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

_2__Transition Zone __2_West __2_ Northeast _____ Other (Specify):_____

* 4. MATURITY: (Date First Headed, 10% of Panicle Emergence)

_7___ Maturity Class 1 = Very early ( ) 2 = AU Triumph 3 = Early (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)

4. MATURITY: (continued)

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6 = Bonanza 7 = Late (Silverado) 8 = ( ) 9 = Very late

Date Headed __39.67 days after April 1,__ Location __Albany, Oregon, USA_____

__5_ Days earlier than __6__
Maturity same as _____
_____Days later than _____
} Comparison Variety

---

* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)

_134_._97_ cm Height

_29 ._64 cm Shorter than _6_
Height same as ___
__ __.__ cm Taller than ___
} Comparison Variety

* INTERNODE LENGTH CM: (First internode subtending the flag leaf)

_24 ._27 cm InternodeLength

_6_._96 cm Shorter than _6_
Length same as ___
__ __.__ cm Longer than ___
} Comparison Variety

* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf node)

_36_._43_ cm Height

19_._77 cm Shorter than _6_
Height same as ___
__ __.__ cm Taller than ___
} Comparison Variety

---

* 6. GROWTH HABIT: (Mature Plants)

_7_ 1 = Prostrate ( ) 3 = Semiprostrate ( ) 5 = Horizontal ( )

7 = Semierect (Rebel) 9 = Erect (Mini Mustang)

---

* 7. RHIZOMES (Psuedo):

__ __.__ mm Length _X_1 = Absent (6) 2 = Rare (Rebel) 3 = Common ( )

---

* 8. LEAF BLADE: (Tiller leaves/ turf color)

*_7_ Color: 1 = Light green ( ) 3 = Medium light green (6) 5 = Green ( )

7 = Medium dark green ( ) 9 = Very dark green ( )

_3.68__ Specify rating of comparison variety

*_1_ Anthocyanin: 1 = Absent (6) 9 = Present ( )

*_9_ Basal Hairs: 1 = Absent ( ) 9 = Present (6)

*_5_ Margins: 1 = Smooth (6) 5 = Semi-rough ( ) 9 = Rough ( )

8. LEAF BLADE: (continued)

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*_5_Width Class: 1 = Very coarse ( ) 3 = Coarse ( ) 5 = Medium ( )

7 = Fine ( ) 9 = Very Fine ( )

* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

_27_._27_ cm Tiller Leaf Length

11_._10 cm Shorter than _6

Length same as ___

__ __.__ cm Taller than ___

} Comparison Variety

* TILLER LEAF WIDTH MM:

_8.63_ mm Tiller Leaf Width

_1.02 mm Narrower than_6_

Width same as ___

__.__ mm Longer than ___

} Comparison Variety

Comparison Variety

FLAG LEAF LENGTH CM:

_40_._60 cm Flag Leaf Length

10.70 cm Shorter than _6_

Length same as ___

__.__ cm Longer than ___

} Comparison Variety

FLAG LEAF WIDTH MM:

_6.48__ mm Flag Leaf Width

__.__ mm Narrower than ___

Width same as 6__

__.__ mm Wider than ___

} Comparison Variety

* 9. LEAF SHEATH: (Basal Portion)

*_1_ Anthocyanin (seedling): 1 = Absent (K31) 9 = Present ( )

*_9_ Auricle Hairiness: 1 = Absent ( ) 9 = Present ( )

* 10. PANICLE: (At seed maturity except where noted.)

*_1_ Shape: 1 = Narrow-tapering ( ) 5 = Ovate ( ) 7 = Oblong ( ) 9 = Other (specify)

*_7_ Type: 1 = Compact (appressed) 5 = Intermediate ( ) 7 = Open ( ) 9 = Other (specify)

*_9_ Orientation: 1 = Nodding ( ) 9 = Erect ( )

*___ Branch Pubescence: 1 = Glabrous ( ) 9 = Pubescent ( )

*_1_ Anther Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green

4 = Purplish 5 = Reddish 6= Other (Specify)

*_1_ Glume Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green

4 = Purplish 5 = Reddish 6= Other (Specify)

*_83_._40_ cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

12.85 cm Shorter than _6_

Length same as ___

__.__ cm Longer than ___

} Comparison Variety

* 11. SEED: (With Lemma & Pelea)

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*__2516__ mg per 1000 seeds

__27__ mg Less than _6_
Weight same as ___
___ ___ ___ mg More than ___
} Comparison Variety

PALEA: (Keels or Margins) _1_ Hairs: 1 = Absent ( ) 5 = Short (Missouri 96) 9 = Long ( )

LEMMA: _1_ Hairs: 1 = Absent (Kenhy) 5 = Several ( ) 9 = Many (Missouri 96)

_5.26 mm Lemma Length (Mature) _1.52__ m Lemma Width

_0.49 mm Shorter than _6_
Length same as ___
__.__ mm Longer than ___
} Comparison Variety

__.__ mm Narrower than ___
Width same as _6_
__.__ mm Wider than ___
} Comparison Variety

*AWNS: _9_ AWNS: 1 = Absent ( ) 9 = Present (Falcon) _100__% Plants with awns

_1.90 mm Awn length (Of those present.)

_0.34 mm Shorter than _6_
Length same as ___
__.__ mm Longer than ___
} Comparison Variety

12. DISEASE, INSECT, AND NEMATODE REACTION: (0= Not Tested 1= Least Resistant 9= Most Resistant)

_0_ Melting-out *Drechslera poae*
_0_ Leaf Spot *D. siccans*
_0_ Net Blotch *D. dictyoides*
_0_ Brown Patch *Rhizoctonia solani*
_0_ C. Leaf Spot *Cercospora fectucae*
_0_ Pink Snow Mold *Gerlachia nivalis*
_0_ Silver Top *F. tricinctum, F. roseum*
_0_ Blind Seed *Gloeotinia temulenta*
_0_ Dollar Spot *Lanzia, Mollerdiscus* spp.
_0_ Stem Rust *Puccinia graminis*
_0_ T. Blight *Typhula incarnata*
_0_ Pythium Blight *Pythium* spp.
_0_ Powdery Mildew *Erysiphe graminis*
_0_ Crown Rust *Puccinia coronata*
_0_ Other Disease _____
_0_ Other Insect _____
_0_ Other Nematode _____

13. ENVIRONMENTAL STRESS

_5_ Drought Stress 1 = Susceptible ( ) 5 = Tolerant (6) 9 = Resistant ( )

_5_ Shade Stress 1 = Susceptible ( ) 5 = Tolerant (6) 9 = Resistant ( )

13. ENVIRONMENTAL STRESS: (continued)

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_5_ Winter Stress 1 = Susceptible ( ) 5 = Tolerant (6) 9 = Resistant ( )

14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application variety is less than comparison variety 2 = Same as 3 = More than, better, greater, darker, etc.

Character	Varieties	Rating	Character	Varieties	Rating
Leaf Width	Rebel II	2	Leaf Color	Rebel II	3
Panicle Color	Rebel II	2	Panicle Shape	Rebel II	2
Seed Size	Rebel II	1	Cold Injury	Rebel II	2
Winter Color	Rebel II	3	Heat	Rebel II	2
Disease	Rebel II				

* 15. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

A morphological nursery designated 00PVPFA was established in September 2000, in Albany, Oregon. Experimental design consisted of 18 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. KY-31, Rebel II, Regiment and Tulsa were used as a standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2001 and 2002. The fertilizer source was 15 - 15 - 15 and was applied as a split application with ½ applied in the spring and ½ in the autumn. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during the late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:

Additional Description

Signia (ATF708) Tall Fescue

Signia is an improved turf-type tall fescue. It has a shorter growth habit (tables 1A, 1B) than previously released tall fescue cultivars, such as KY-31, Rebel II, Tulsa and Regiment. Signia has a late maturity with a heading date and anthesis date later than KY-31, Rebel II and Regiment (tables 1A, 1B). Signia exhibits a darker genetic color compared to KY-31, Rebel II, Tulsa, and Regiment (tables 1A, 1B). The panicle length of Signia is shorter compared to KY-31, Rebel II, Regiment (tables 1A, 1B). The flag leaf characteristics of length and height are shorter for Signia than KY-31, Rebel II, Tulsa, and Regiment (tables 1A, 1B). The leaf blade characteristics of length, height and sheath length are shorter for Signia than KY-31, Rebel II and Tulsa (tables 1A, 1B). The whorl characteristic length of longest branch is shorter for Signia compared to KY-31, Rebel II, Tulsa, and Regiment (tables 2A, 2B, illus. 1). Signia has fewer plants with purple pigmentation in the panicles than Rebel II (tables 3A, 3B). The purple pigmentation in the glume is less frequent in Signia compared to Regiment (tables 3A, 3B). Signia expresses fewer plants with dark pigmentation at the nodes compared to Rebel II, KY-31, Tulsa and Regiment (tables 4A, 4B). Signia has a higher seed weight per 1,000 seeds compared to Tulsa and Regiment (tables 3A, 3B).

Panicle Type Inflorescence

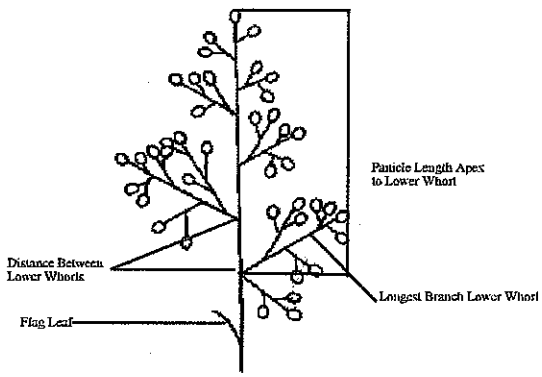

Illustration 1.

Table 1A 2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
ATF708	39.67	62.67	5.47	81.70	15.97	67.60	33.60	6.47	36.43	20.57	13.10	27.27	8.63	13.23	10.87
KY-31	30.67	59.67	3.17	125.73	18.40	91.93	50.53	8.58	63.83	30.80	23.20	43.13	10.13	27.37	17.47
Rebel II	34.33	61.00	3.68	113.23	22.13	85.87	46.57	7.92	56.20	28.03	20.27	38.37	9.65	22.33	16.90
Tulsa	39.33	63.33	4.35	100.80	18.67	77.17	40.97	7.00	45.97	23.70	17.60	33.87	8.65	18.60	14.17
Regiment	35.67	62.00	4.25	99.37	19.00	78.67	41.97	7.63	42.87	22.50	15.40	34.27	9.15	15.77	12.97
Plantation	40.33	63.33	5.28	93.97	18.57	72.97	39.87	6.80	44.07	24.13	16.23	34.77	9.12	17.80	14.13
LSD (.05)	1.95	1.37	0.36	6.90	1.68	4.89	2.92	0.94	4.50	2.00	1.77	2.89	0.79	2.38	1.55
C.V.	3.62	1.58	5.27	5.58	6.96	5.00	5.77	10.18	8.03	6.58	8.48	6.89	6.67	11.28	9.17

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

(ST: 8/18/2006)

Table 1B

2002 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (mm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (mm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
ATF708	30.00	65.00	5.92	105.33	24.77	70.57	40.60	6.48	58.43	24.73	24.27	37.70	7.47	27.30	15.20
KY-31	12.00	58.00	3.38	150.07	24.60	93.03	57.10	7.47	92.70	35.67	32.03	54.03	9.85	49.90	22.83
Rebel II	20.67	62.00	4.32	134.97	24.90	83.40	51.30	6.80	81.80	32.27	31.23	49.03	8.50	42.70	19.90
Tulsa	28.67	64.00	5.13	113.97	24.73	73.83	43.73	6.03	66.13	26.70	26.03	41.27	7.60	33.53	16.77
Regiment	25.33	62.67	4.70	120.43	24.93	79.40	47.83	6.67	69.57	27.90	27.37	45.47	7.57	32.80	17.57
Plantation	28.33	64.00	5.58	116.37	24.70	75.17	43.97	6.47	67.03	27.73	27.27	42.27	8.15	31.53	17.47
$LSD_{(.05)}$	3.21	1.42	0.24	5.03	1.16	4.66	2.54	0.61	3.67	1.14	1.45	2.44	0.65	2.79	0.88
C.V.	4.13	1.62	3.33	3.24	3.40	4.60	4.25	7.02	4.09	3.12	4.10	4.31	6.07	6.38	3.87

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

(BT:8/18/2006)

Table 2A

2001 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Lemma Awn Length (mm)	Palea Length (mm)	Palea Width (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Spike From Lower Most Whorl to Tip (mm)
ATF708	5.26	1.52	1.90	6.34	1.35	4.53	6.18	11.70	80.63	47.23	17.60	98.33	18.80
KY-31	6.16	1.56	2.15	7.28	1.49	5.77	6.77	13.80	115.03	61.87	15.10	110.00	27.20
Rebel II	5.75	1.49	2.24	6.99	1.40	5.11	5.80	12.30	100.60	58.53	15.00	101.00	24.33
Tulsa	5.62	1.44	2.11	6.52	1.34	5.05	6.77	12.30	102.60	56.53	16.82	100.67	23.40
Regiment	5.96	1.53	2.29	6.96	1.44	5.16	6.47	13.13	114.27	60.73	16.07	92.33	24.50
Plantation	5.47	1.51	2.07	6.48	1.35	4.71	6.08	11.80	96.93	54.80	19.23	119.33	22.57
(BT:8/18/2006) LSD(.05)	0.27	0.08	0.19	0.21	0.08	0.25	0.75	0.89	14.06	5.72	2.69	9.92	2.09
C.V.	3.53	3.66	6.55	2.26	4.00	3.62	8.13	5.13	10.51	7.76	11.99	7.65	7.04

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

Table 2B

2002 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Lemma Awn Length (mm)	Palea Length (mm)	Palea Width (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Length of Longest Whorl (mm)	Distance Between Lower Most Whorls (mm)	Number of Spikelets on the Longest Whorl	Spikelets per Panicle	Length of Spike From Lower Most Whorl to Tip (mm)
ATF708	6.40	1.33	0.94	6.17	1.11	4.64	4.82	10.37	67.73	47.90	13.95	92.67	20.70
KY-31	7.23	1.37	0.89	6.98	1.23	5.23	4.88	11.43	98.40	64.57	15.80	114.67	30.13
Rebel II	6.92	1.43	1.34	6.68	1.26	5.12	4.93	11.57	100.43	61.90	16.08	102.67	27.00
Tulsa	6.61	1.33	0.80	6.23	1.11	4.75	4.98	10.40	86.37	52.33	16.08	96.00	23.33
Regiment	6.70	1.37	1.04	6.53	1.17	4.80	4.77	10.97	92.33	56.73	14.02	87.33	24.60
Plantation	6.59	1.30	0.80	6.28	1.12	4.64	4.28	9.87	78.77	50.20	16.13	98.33	22.07
$LSD_{(.05)}$	0.31	0.09	0.21	0.20	0.06	0.31	0.55	0.64	11.42	5.58	2.81	10.71	2.14
C.V.	3.42	5.07	15.21	2.28	3.87	4.66	8.02	4.30	9.95	7.65	13.49	8.42	6.75

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.
■ Significant difference over two years one location.
■ Significant difference over one year one location.

2003017

(ET:8/18/2006)

2003017

Table 3A

2001 Additional Morphological Measurements of the Panicle

Cultivar	Anther Color % Purple	Panicle Color % Purple	Lemma Hairs % Present	Palea Hairs % Present	Lemma Awn % Present	Glume Color % Purple	Panicle Orientation % Nodding	Panicle Shape % Ovate	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Branch Lower Whorl =4	Seed Weight mg/1,000 Seeds
ATF708	2	10	95	100	100	0	0	57	43	17	17	73	10	2516
KY-31	0	7	97	100	100	0	12	82	18	10	10	82	8	3345
Rebel II	0	15	98	98	100	0	10	83	17	13	13	87	0	2543
Tulsa	0	18	97	100	100	3	0	70	30	25	25	73	2	2395
Regiment	2	10	97	100	100	2	3	85	15	27	27	72	2	2195
Plantation	0	10	98	100	100	0	0	78	22	13	13	83	4	2584

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.

Table 3B

2002 Additional Morphological Measurements of the Panicle

Cultivar	Anther Color % Purple	Panicle Color % Purple	Lemma Hairs % Present	Palea Hairs % Present	Lemma Awn % Present	Glume Color % Purple	Panicle Orientation % Nodding	Panicle Shape % Ovate	Panicle Type % Open	Branch Lower Whorl =1	Branch Lower Whorl =2	Branch Lower Whorl =3	Branch Lower Whorl =4	Seed Weight mg/1,000 Seeds
ATF708	5	18	95	100	100	5	0	28	72	32	65	3	0	2466
KY-31	5	13	97	100	100	3	0	2	98	23	73	3	0	3348
Rebel II	5	30	98	100	100	10	0	23	77	28	72	0	0	2562
Tulsa	2	22	98	100	100	5	0	25	75	43	57	0	0	2369
Regiment	2	23	93	100	100	12	0	23	77	42	57	2	0	2259
Plantation	7	30	98	100	100	2	0	38	62	35	63	2	0	2596

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.

Table 4A 2001 Additional Morphological Measurements of the Leaf Blade

Cultivar	Growth Habit at Anthesis % Prostrate	Growth Habit at Anthesis % Semi-Prostrate	Growth Habit at Anthesis % Erect	Anthocyanin Present in the Leaf Blade % Purple	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Present	Rhizomes % Present	Node Color % Distinct
ATF708	8	40	52	0	33	18	48	90	87	0	3
KY-31	40	50	10	0	70	15	15	80	92	0	48
Rebel II	10	77	13	0	83	12	5	87	85	0	13
Tulsa	10	78	12	0	68	18	13	85	87	0	15
Regiment	7	80	13	0	83	12	5	78	83	0	12
Plantation	7	63	30	0	40	32	28	82	87	0	2

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.

Table 4B 2002 Additional Morphological Measurements of the Leaf Blade

Cultivar	Growth Habit at Anthesis % Prostrate	Growth Habit at Anthesis % Semi-Prostrate	Growth Habit at Anthesis % Erect	Anthocyanin Present in the Leaf Blade % Purple	Leaf Blade Margin Roughness to the Touch % Smooth	Leaf Blade Margin Roughness to the Touch % Semi-Rough	Leaf Blade Margin Roughness to the Touch % Rough	Leaf Blade Margin Hairs % Present	Leaf Sheath Auricle Hairs % Present	Rhizomes % Present	Node Color % Distinct
ATF708	8	40	52	0	52	31	17	95	90	0	12
KY-31	40	50	10	0	75	13	12	80	77	0	23
Rebel II	10	77	13	0	77	13	10	87	92	0	40
Tulsa	10	78	12	0	56	27	17	85	88	0	25
Regiment	7	80	13	0	58	22	20	87	95	0	23
Plantation	7	63	30	0	34	17	49	88	88	0	8

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.
■ Cultivar under evaluation.

REPRODUCE LOCALLY. Include form number and edition date on all reproductions. FORM APPROVED - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (*7 U.S.C. 2421*). The information is held confidential until the certificate is issued (*7 U.S.C. 2426*).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
~~Ronnie Stapp~~ (BT: 8/11/06) ~~Pennington~~ Pennington Seeds, Inc	ATF708	Signia
4. ADDRESS (*Street and No., or R.F.D. No., City, State, and Zip, and Country*)	**5. TELEPHONE** (*Include area code*)	**6. FAX** (*Include area code*)
~~P. O. Box 290~~ 270 Hansard Avenue ~~Madison, GA~~ ~~30650~~ Lebanon, OR 97355 (BT: 8/11/06)	(541) 451-5261 ~~404-342-1234~~	(541) 451.5260 ~~404-342-9644~~ (BT: 8/11/06)
	7. PVPO NUMBER 200300071	

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.**

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.**

☒ YES ☐ NO

10. Is the applicant the original owner? **If no, please answer one of the following:**

☒ YES ☐ NO

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☒ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☒ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(If needed, use the reverse for extra space)*:

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.